European Collaborative Innovation Centres for Broadband Media Service

Fachhochschule Hannover
University of Applied Sciences and Arts

Advanced Methods for Usability Testing

Case Study

EUROPEAN UNION
European Regional Development Fund

Investing in the future by working together for a sustainable and competitive region

The Interreg IVB North Sea Region Programme

Summary

1 Executive Summary

Quantitative analysis of user experience is difficult to obtain. A workflow was established to allow quantitative analysis of user experience including an evaluation to obtain statistic significant results. These results were published.

2 Problem Statement

The Eyetracking Technology for usability testing ist well established and used widely.(Bente, Eschenburg, & Fürtjes, 2007) However, benchmarking experiments comparing different websites ore other sources are less common. Quantitative analysis of user experience is difficult to obtain. (Tullis, 2009)

3 Alternatives

Usability studies are mainly qualitative studies using 5 to 12 subjects as test persons. (Nielsen Norman Group, 2009) Insights gained by these observations are then publiced in reports and presentet to the client, including suggestions for the improvement of the website or other source. However, statistic significant results usually are not available due to the limited amount of subects and the time and effort necessary to perform the experiments

4 Conclusion

We used the Eyetracker technology of SMI, including the software Experiment Center and Begaze to acquire the data. We used the software QSR NVivo Project 9 to analyze the data. Results were then exported into IBM SPSS Statistics Version 19 to carry out the final evaluations.

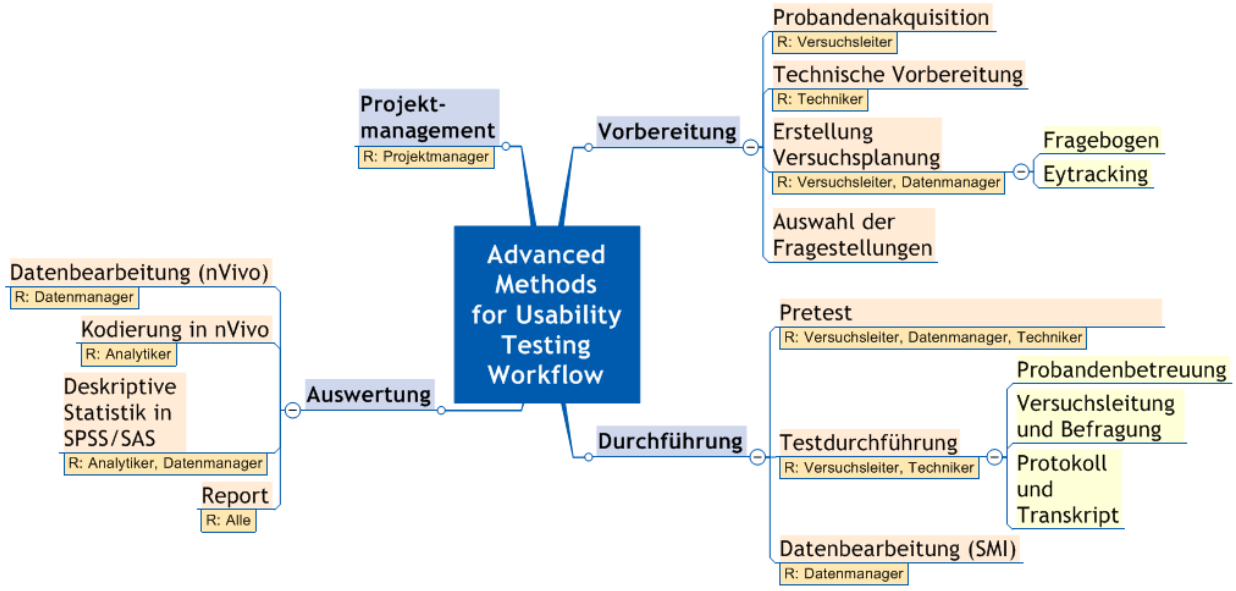

Abbildung 1 Advanced Methods for Usability Testing Workflow

Abbildung 2 Eyetracker Setting

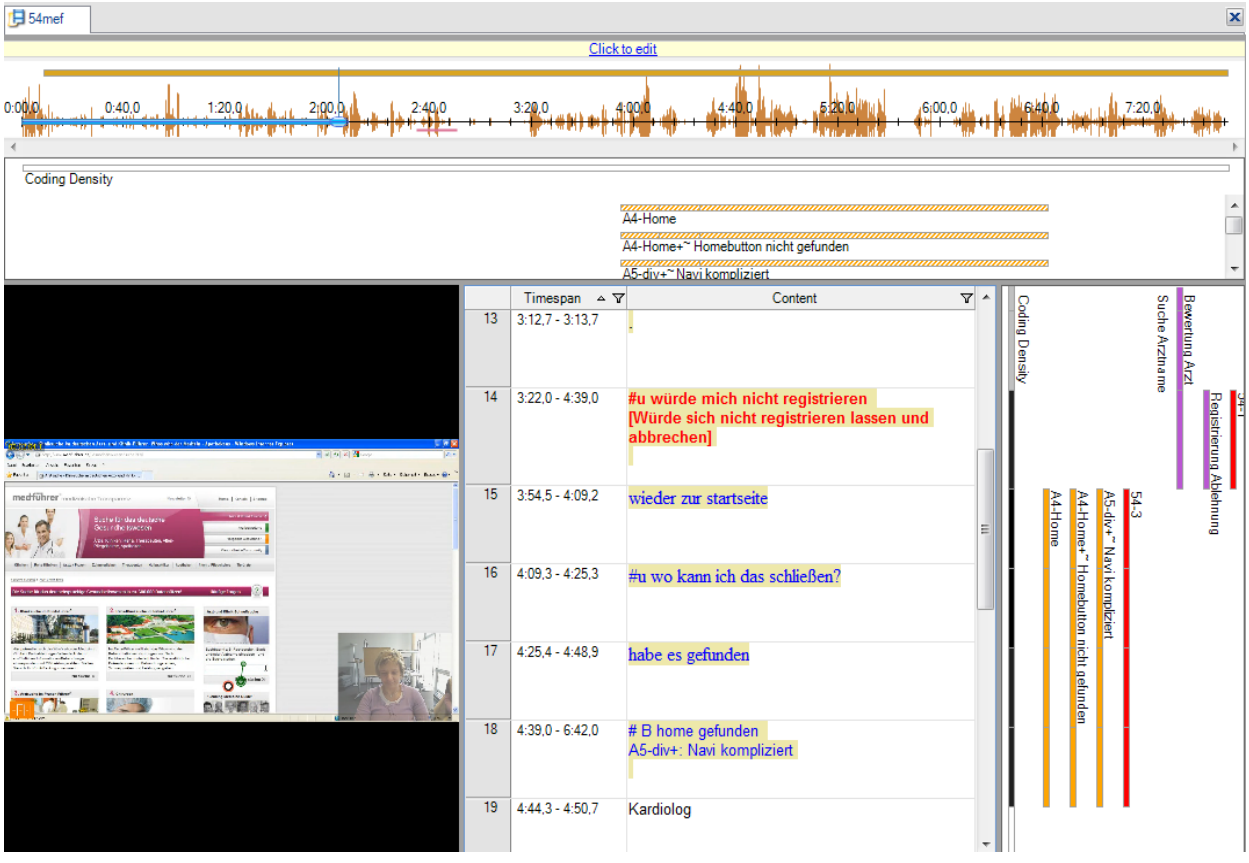

Abbildung 3 Screenshot QSR NVivo Project 9, used to analyze the data

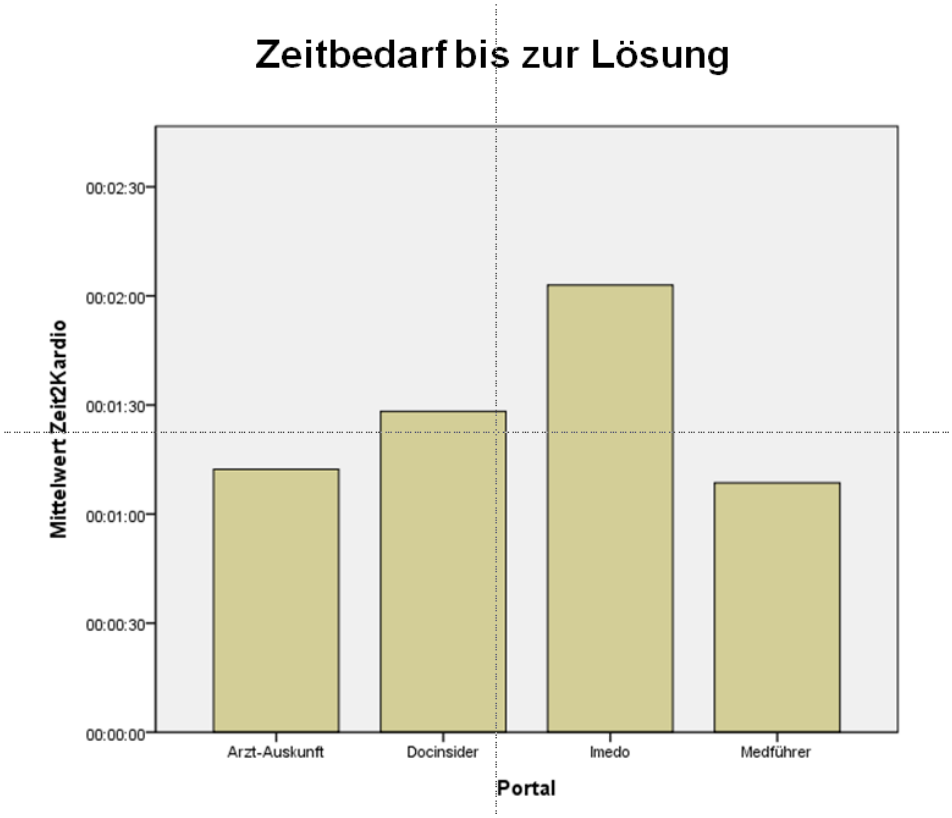

Abbildung 4 Screenshot IBM SPSS Statistics Version 19, used to carry out the final evaluations

5 Implementation

A workflow was established to allow quantitative analysis of user experience incldluing an evaluation to obtain statistic significant results. These results were published.(Emmert, Sander, Maryschok, Esslinger, & Schöffski, 2010)


09 / 2010

Arzt-Bewertungsportale im Internet:
Eine aktuelle Bestandsaufnahme

von Martin Emmert, Uwe Sander, Markus Maryschok, Susanne Esslinger, Oliver Schöffski

IMPLICONplus

– Gesundheitspolitische Analysen –

5. Sind die Portale benutzerfreundlich?

Ganz entscheidenden Einfluss auf den potenziellen Nutzen der Arztbewertungsportale hat auch deren Benutzerfreundlichkeit bzw. die Gebrauchstauglichkeit, bezeichnet mit dem Fachbegriff Usability. Um zu untersuchen, wie die Benutzerfreundlichkeit der Arztbewertungsportale einzuschätzen ist, wurde im Usability-Labor der Fachhochschule Hannover im Rahmen des EU-geförderten Projektes E-Clic für die Portale Arztauskunft, Imedo, Jameda, Medfuehrer, Die-Arztempfehlung und DocInsider eine Eye-Tracking Untersuchung in 49 Versuchsdurchläufen durchgeführt. Die Probanden waren zwischen 26 und 60 Jahren alt und wiesen bezüglich ihrer Berufstätigkeit und Interneterfahrung

Abbildung 5 Screenshot from (Emmert et al., 2010)

Reference List

Bente, G., Eschenburg, F., & Fürtjes, M. (2007). Im Auge des Nutzers: Eye-Tracking in der Web-Usability-Forschung. *Online-Forschung 2007*, 185–219.

Emmert, M., Sander, U., Maryschok, M., Esslinger, S., & Schöffski, O. (2010). Arzt-Bewertungsportale im Internet: Eine aktuelle Bestandsaufnahme. *IMPLICONplus – Gesundheitspolitische Analysen.* Retrieved March 18, 2011.

Nielsen Norman Group (2009). *Eyetracking Methodology.* Retrieved March 20, 2010.

Tullis (2009). *Measuring the User Experience: Collecting, Analyzing, and Presenting Usability Metrics: Collecting, Analyzing, and Presenting Usability Metrics:* Morgan Kaufmann Publishers.